

Appl. No. 10/539,895  
Reply to Office Action of March 18, 2009  
Attorney Docket 18064

### **REMARKS/ARGUMENTS**

Claims 1-14 are currently pending for examination. Claims 1,4, 8,10,11 and 13 are currently amended. No new matter has been added.

#### **Rejection of Claims under 35 U.S.C. §103**

Claims 1 – 5 and 14 were rejected by the previous Office Action under 35 U S C §103 as obvious by U.S. Patent No. 4,580,811 to Wykhuis in view of US Patent 4,664,404 to Schultz. This rejection is respectfully traversed.

Claims 1 recites a road grader having a combined bumper and rear counterweight comprised of a generally flat elongate rear end plate with two configurations that mounts to the rear end of the frame of the grader. In a first configuration the rear end plate exhibits a small wall thickness in use with a rear-mounted piece of equipment of a high weight. In a second configuration a rear end plate exhibits a greater wall thickness in use with a rear-mounted piece of equipment of a low weight or without any rear-mounted equipment. In both configurations the rear end plate form the rearmost part of the frame and are similarly mounted directly above the piece of equipment attached to the frame such that an axle load distribution of the grader is generally maintained between the first and second configurations, as shown by example in Figure 1.

In contrast, Wykhuis discloses a rear counterweight assembly for a vehicle with an implement mounted to its forward end. The counterweight is incorporated into the rear bumper assembly and includes counter rectangular weights having notched lower edges that can be received on bumper mounting rods that are

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received in holes in the rear of the vehicle. The ends of the rods inserted into the frame are threaded so that they can be secured by nuts on the inner side of the frame. While the counterweight of Wykhuis can be increased, the reference does not disclose altering the thickness of a rear plate that acts as both the counterweight and bumper. Wykhuis does not discuss alternatively using a first plate or a second plate, rather Wykhuis instead adds or subtracts additional plates, mounted behind the bumper, based on a desired weight. Wykhuis further does not disclose that the attached equipment is mounted to the frame below the rear end plates helping to maintain similar axial loading in both the first and second configuration.

Schultz shows a rear weight and hitch assembly where an implement is attached rearward of a counterweight assembly. Similarly to Wykhuis, multiple weights are added or subtracted to achieve a desired counter weight. Individual weight assemblies are not keyed to correspond with the presence or absence of a particular attached implement. The weights in Schultz are located within support assembly distanced from the area of the implement so as not to interfere with hitch operations and do not form the rearmost part of the frame or both serve separately as a bumper of the vehicle. As neither Wykhuis or Schultz show all of the elements of the alone or in combination of the claimed inventions, nor would it be obvious to combine them removal of this rejection is requested.

Claim 14 recites the steps of removing a first rear end plate having a first weight and first wall thickness from an end of the grader, attaching a rear mounted piece of equipment to the end of the grader, and attaching a second end plate having a second weight less than the first weight and a second thickness less than

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the first wall thickness to the end of the grader as a method for maintain an axle load distribution in conjunction with the attachment of an implement.

As noted above Wykhuis does not recite two distinct rear end plates that serve as both a bumper and a counterweight, each usable independent of the other depending on the attachment and type of equipment mounted to the frame. In both Wykhuis and Schultz multiple counterweights of similar weights are added or subtracted from the vehicle to achieve a particular loading. As neither reference shows using separate rear end plate/ bumpers based on whether equipment is similarly mounted to a frame, removal of this rejection is requested.

As the prior art references do not show all of the limitations of claims 1 or 14 removal of the rejections is requested.

Claims 2-5 depends directly from claim 1 and are allowable for at least the same reasons as claim 1. Accordingly, allowance of claims 2-5 is respectfully requested.

Claims 4 is separately patentable as it recites that in both the first and second configuration the associated rear end plate constitutes the rearmost part of the rear frame and that the first and second rear end plates having similar opposing outer end portions and openings through the outer end portions and backup/brake and flasher lights are fitted therein wherein the lights do not extend beyond the end of the frame. Schultz does not show a light mounting configuration. Wykhuis shows placing the rear lights within an elastomeric bumper structure rather than within the body of the counterweight such that the lights do not extend beyond the counterweight. Wykhuis does offer as secure of a protection for the lights against

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damage or destruction as they are located within a softer bumper structure rather than protected by the counterweight rear end plate.

Claims 8-10 and were rejected under 35 U.S.C. §103 as obvious by U.S. Patent No. 3,853,231 to Luttrell in view of Schultz

Claim 8 recites a road grader having a generally flat elongate rear end plate jointed to the rear end of frame. The rear end plate constitutes the rearmost part of the rear frame and extending generally the width of the road grader. The rear-end plate further has apertures to improve the travel of of rear-mounted ground engaging equipment mounted to the frame of the grader through a portion of the plate.

In contrast, Luttrell discloses a work vehicle having a front ground engaging blade and a rear counterweight that is removably insertable into an opening in the vehicle frame. A second counter weight can then be secured over the opening which houses the first counter weight by fasteners. Luttrell discloses a lug and retaining pin for attaching an implement for towing portions but is not recessed for permitting the travel of a trailed implement attached to the vehicle. Luttrell further does not disclose or suggest mounting a thinner rear plate based on the weight of a towed rear implement to improve the axle load distribution. Schultz as discussed above shows a counterweight assembly of uniform size. The counterweights have a cut out portion such that a cylinder mounted to the platform holding the counterweights can move rearwardly through a portion of the counterweights. Neither Luttrell or Schultz show a rear end plate forming counterweight rear bumper that has a cutout to permit travel of a portion of ground engaging implement.

Claims 9 and 10 depend either directly or indirectly from claim 8 and are allowable for at least the same reasons as claim 8. Accordingly, allowance of claims

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8-10 is respectfully requested.

Claim 10 is separately patentable as neither Lutrell or Schultz show a second rear end plate bumper removably attachable to the rear transverse beam, wherein the second rear end plate is attached to the rear transverse beam, in place of the first rear end plate, and in combination with equipment of a lower weight than the ground engaging equipment or without any rear-mounted equipment, the second rear end plate having a higher weight than the first rear end plate. Lutrell shows a single counterweight bumper. Schultz shows a counterweight system having multiple uniform counterweights in a rear cavity of the vehicle.

Claims 11 and 13 were rejected by the previous Office Action under 35 U.S.C. §103 as obvious in view of Luttrell and Schultz and in further view of Wykhuis.

Claim 11 and 13 depend directly from claim 8 and is allowable for at least the same reasons as claim 8.

Claim 11 is separately patentable as for similar reasons discussed with respect to claim 4. Schultz and Lutrell do not show a light mounting configuration. Wykhuis shows placing the rear lights within an elastomeric bumper structure rather than within the body of the counterweight such that the lights do not extend beyond the opening within the rear end plate.

Claim 12 was rejected by the previous Office Action under 35 U.S.C. §103 as obvious in view of Luttrell in further view of Wykhuis and Schultz and in further view of U.S. Patent 3,490,787 to Latterman.

Claim 12 depends from claim 8 and is allowable for at least the same reasons as claim 8.

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**Conclusion**

It is submitted that claims 1-5 and 8-14 define patentable subject matter. A Notice of Allowance is therefore respectfully requested.

No fee is believed due with this communication. Nevertheless, should the Examiner consider any fees to be payable in conjunction with this or any future communication, authorization is given to direct payment of such fees, or credit any overpayment to Deposit Account No. 14-0780. The Examiner is invited to contact the undersigned by telephone if it would help expedite matters.

Respectfully submitted,



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